Response to Instruction—
Tier 3 Interventions

Dr. Erica Lembke
University of Missouri
lembkee@missouri.edu

Overview

▸ Critical elements needed in RTI
▸ Our process within Tier 3
▸ How does Tier 3 instruction differ?
▸ How do we determine when a change in instruction is necessary?
  ◦ Types of data that inform our decisions
  ◦ Decision-making rules
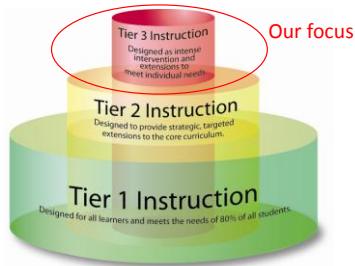▸ What do we do when an instructional addition or change is necessary?

Critical elements that districts need in place to effectively implement RtI

1. Well-functioning, school-based problem-solving teams
2. School wide screening and progress monitoring system
   - Needs to be technically adequate (Curriculum-Based Measurement (CBM) is one example)
3. Systematic analysis of school-wide data
   - Utilize decision-making rules
4. Examine current core academic programs
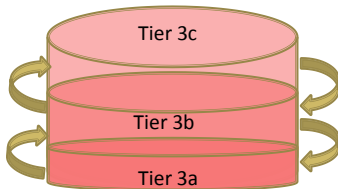   - Are these programs meeting the needs of the majority of the students?

---

5. Identify evidence-based interventions for Tiers 2 and 3 and a schedule for implementation of the tiered interventions
   a) Determine how fidelity of treatment for Tiers 1-3 will be assessed
6. Monitor the progress of students in Tiers 2 and 3 on a frequent basis
   - Setting goals
   - Collecting data
   - Implementing data decision rules
   - Making changes in instruction

Our process within Tier 3

Indiana's three-tiered model of instruction

Our focus

Tier 3 Instruction
Designed as intense intervention and extensions to meet individual needs

Tier 2 Instruction
Designed to provide strategic, targeted extensions to the core curriculum.

Tier 1 Instruction
Designed for all learners and meets the needs of 80% of all students.

Our process within Tier 3

Tier 3c

Tier 3b

Tier 3a

Our process within Tier 3

- Tier 3a—students who are making adequate progress towards meeting their long term OR IEP goals
  - The core curriculum (either in gen. ed. or special ed. is 'working' for them)
- Tier 3b—students who need more strategic intervention to meet their long term OR IEP goals
  - Something in addition to or something different than what they are already getting (a tweak, a slight change)
- Tier 3c—students who need intensive intervention to meet their long term OR IEP goals
  - Probably need some significant change from what you've been trying (substantial change)

How does Tier 3 instruction differ?

What does instruction look like at each Tier?

Tier 1—Core-classroom Instruction
Differentiated instruction
Co-teaching
Research-based core program

▸ Tier 2—Targeted Instruction
  ◦ Fewer students than in Tier 1
  ◦ Review of core components
  ◦ Could be a program like Peer-Assisted Learning Strategies
▸ Tier 3—Intensive Instruction
  ◦ Small group
  ◦ Individualized instruction
  ◦ More intensive/systematic/explicit
  ◦ Could be a program like Reading Mastery or Wilson's

Key to instructional success...

▸ The teaching!
▸ Should be explicit and systematic…

Explicit teaching procedures

‣ Use explicit teaching demonstrations
  ◦ Model, lead, test
‣ Control the language used in teaching skills and strategies
‣ Introduce one new skill at a time
‣ Provide guided practice in applying strategies
‣ Selecting examples
  ◦ Present appropriate introductory examples
  ◦ Provide discrimination practice

Systematic teaching procedures

‣ Sequencing skills
  ◦ Teach preskills of a strategy before the strategy is presented
  ◦ Introduce high utility skills before less useful ones and easy skills before more difficult ones
  ◦ Separate strategies and information likely to be confused
‣ Introduce new information at a realistic rate
‣ Provide adequate practice and review

How does Tier 3 instruction differ?

‣ The duration, frequency, group size, and intensity (explicitness and systematic-ness).
‣ Example of lesson differentiation by tiers in handouts…
  ◦ Look through each lesson (Beyonce and analogies and make notes about how the lessons differ with respect to intensity of instruction.)

How do we determine when a change in instruction is necessary?

Data Utilization and Decision-Making Rules
More focus on data—less subjectivity

---

1 to 3 times per year
Standardized national or state test
District test
CBM Screening
? answered—how is this student
doing compared to peers or
benchmarks?

Weekly or monthly
Progress monitoring using CBM
for students deemed at-risk after
district or state tests or CBM screening
? answered—how proficient is
the student in a particular subject?

Weekly or monthly
Diagnostic tests (teacher-made, unit, or
chapter tests)
? answered—what specific skills are
mastered or do I need to reinforce?

How assessments work together...

▸ Norm-referenced tests
  ◦ Keep teachers and schools and districts in touch with how their students are doing on a state and national basis
▸ CBM
  ◦ Provides a <u>technically adequate</u> tool for determining which students are in need of intervention (can also compare to national benchmarks)
  ◦ Provides a <u>technically adequate</u> tool for determining whether instruction and intervention are effective for students
▸ Quizzes, unit tests, teacher-made tests
  ◦ Provides diagnostic information regarding what skills need to be taught or re-taught

Decision-making rules


Goal Line Versus Student's Current Rate of Progress

‣ Examine both level and rate of student progress to determine whether students are progressing adequately to reach end-of-year goals
‣ Compare student's current rate of progress with projected rate of progress (i.e., goal line)
  ◦ To judge whether the instructional program needs to be modified to better meet student needs
  or
  ◦ To determine whether the goal should be raised
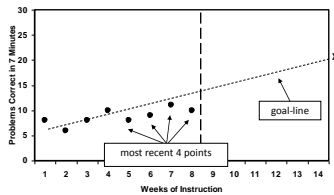

General Decision-Making Framework

4-Point Rule

‣ If 6 weeks of instruction have occurred AND at least 6 points have been collected, examine the 4 most recent data points.
  ◦ If all 4 are above goal line, increase goal.
  ◦ If all 4 are below goal line, make a teaching change.
  ◦ If the 4 data points are both above and below the goal line, keep collecting data until trend-line rule or 4-point rule can be applied.
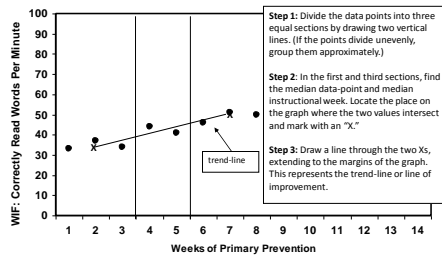
Four-Point Method
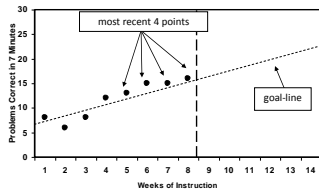
Four-Point Method

General Decision-Making Framework

Trend-Line Rule

- If at least 8 weeks of instruction have occurred AND at least 8 data points have been collected, figure trend of current performance and compare to goal line.
  - If trend of student progress is steeper than goal line, raise goal.
  - If trend of student progress is less steep than goal line, make a teaching change.

Calculating Slope: First draw a trend line

Step 1: Divide the data points into three equal sections by drawing two vertical lines. (If the points divide unevenly, group them approximately.)

Step 2: In the first and third sections, find the median data-point and median instructional week. Locate the place on the graph where the two values intersect and mark with an "X."

Step 3: Draw a line through the two Xs, extending to the margins of the graph. This represents the trend-line or line of improvement.

Establishing a trend line (slope, line of best fit)

‣ Aimsweb will do this OR
‣ Can also calculate by computer using Excel
‣ In Excel, right click on graphed data, add trendline, click on options, and add equation. y=mx+b (m=rate or slope)
‣ Only problem—can't calculate slope within phases of instruction

---

Applying decision-making rules to data

Decision-making Rubric

- **To be implemented at least every 6 to 8 weeks**
- Three questions to guide discussion on data at problem solving team meetings:
  - What is the student's goal? Current level?
  - What decision-making rule are we using (i.e., trend line)? Can we apply that now?
  - If a change needs to be made, what do we do?

In general

Decision-making rubric—to be implemented at least every 6 weeks

Three questions to guide discussion on data at problem solving team meetings:

1) What is the student's goal? Current level?
2) What decision-making rule are we using (4-point; Trend; rubric)? Can we apply that now?
3) If a change needs to be made, what do we do?

FIRST, to make a decision on movement/non-movement between tiers, the following rubric should be applied:

Student should move to a more intensive tier	Student should stay in a tier and an instructional change should be made	Student should stay in a tier with no changes	Student should be moved to a less intensive tier
Trend of data or last 4 consecutive data points are below the goal line for the past 6 weeks, and when the student was checked 6 weeks prior	Trend of data or last 4 consecutive data points are below the goal line for the past 6 weeks	Trend of data or last 4 consecutive data points are even with the goal line	Trend of data or last 4 consecutive data points are above the goal line
Classroom work samples and assessment data indicate that the student is not making progress in the current curriculum, even after a change has been made	Classroom work samples and assessment data indicate that the student is making progress, but not at the expected rate	Classroom work samples and assessment data indicate that the student is adequate or expected progress	Classroom work samples and assessment data indicate that the student is making excellent progress and it does not appear that the intervention may be needed
Inappropriate classroom behaviors are escalating	Frustration is evident, although this has not yet manifested in inappropriate classroom behaviors	Classroom behavior is status quo or has improved	Classroom behavior has improved and frustration is less evident
Other?	Other?	Other?	Other?

Specifically for Tier 3

Decision-making rubric—to be implemented at least every 6-8 weeks

Three questions to guide discussion on data at problem solving team meetings:

1) What is the student's goal? Current level?
2) Can we apply a decision-making rule now? (i.e., trend line)
3) If a change needs to be made, what do we do?

FIRST, to make a decision on movement/non-movement within tier 3, the following rubric should be applied:

Student should move to a more intensive part of Tier 3	Student should stay in the current part of Tier 3 and an instructional change should be made	Student should stay in the current part of Tier 3 with no changes	Student should be moved to a less intensive part of Tier 3
Trend of data is below the goal line with at least 6 to 8 data points, and for the previous 6 to 8 data points as well	Trend of data is below the goal line with at least 6 to 8 data points	Trend of data is even with the goal line with at least 6 to 8 data points	Trend of data is above the goal line with at least 6 to 8 data points
Classroom work samples and assessment data indicate that the student is not making progress in the current curriculum, even after a change has been made	Classroom work samples and assessment data indicate that the student is making progress, but not at the expected rate	Classroom work samples and assessment data indicate that the student is making adequate or expected progress	Classroom work samples and assessment data indicate that the student is making excellent progress and it does not appear that the intervention may be needed
Inappropriate classroom behaviors are escalating	Frustration is evident, although this has not yet manifested in inappropriate classroom behaviors	Classroom behavior is status quo or has improved	Classroom behavior has improved and frustration is less evident
Other?	Other?	Other?	Other?

**SECOND**, if a change needs to be made, the team questions:

‣ **FIRST**, to make a decision on movement/non-movement, the rubric should be applied.

‣ **SECOND**, if a change needs to be made, the team questions:
  ◦ Intensity
  ◦ Fidelity
  ◦ Evidence-based of intervention
  ◦ Duration

Application to a case study—decision making rubric

‣ Use the rubric to apply the decision-making framework to Hannah's graph for the trend line rule. As you do so, consider the following:
  ◦ Hannah's behavior in the classroom has remained consistent
  ◦ Her classwork samples indicate that she is struggling with sight word vocabulary
  ◦ When examining graphed data alone, what is the decision?
  ◦ Questions you would need to ask in these areas?
    · Intensity
    · Fidelity
    · Evidence-based of intervention
    · Duration
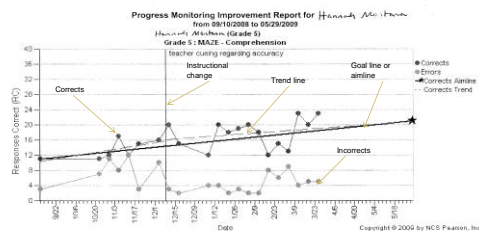
What do we do when an instructional addition or change is necessary?

▸ Research-based practices
  ◦ Replicated in a variety of settings
  ◦ Sample reflects the population for which we're seeking answers
  ◦ Utilize a control group—Implemented with one group while being compared to a control that is not getting the intervention
  ◦ Procedures are clearly described (so that the study could be replicated)
  ◦ Published in peer-reviewed journals

Treatment fidelity

- One of the key components of RtI is lack of response to validated instruction, implemented with integrity
  – Need to check on fidelity of implementation. How can this be done?
  – Checklists, observation, discussion, video
- The purpose of fidelity checks is to create open dialogue regarding what is effective and what needs to be altered
  – Should be an OPEN process—no surprises here!

Types of interventions

▸ Standard treatment protocol--*standard* (same for all students) and *protocol* (predetermined format or delivery system). A validated intervention is used for all students in the group or class.

▸ Problem-solving approach—individualized interventions are developed for the students in the group or class.

37

Examples of places to check for evidence-based interventions

▸ What Works Clearinghouse--
  http://ies.ed.gov/ncee/wwc/
  ◦ IES practice guides
▸ Florida Center for Reading Research reading lessons
  · Fcrr.org
▸ Google Scholar--http://scholar.google.com/
  ◦ Find relevant, research-based references for interventions being considered
▸ CORE reading sourcebook—corelearn.com
▸ Kylene Beers text—When kids can't read what teachers can do: ISBN 978-0-86709-519-7
▸ Peer-assisted learning strategies: http://kc.vanderbilt.edu/pals/

38

NRP Findings Focus on Critical Areas of Literacy Instruction

▸ **Phonemic Awareness**—ability to hear and manipulate individual sounds in oral language
▸ **Phonics**—understanding and connecting letters of written language with sounds of oral language
▸ **Fluency**—reading text accurately and quickly
▸ **Vocabulary**—oral or reading language needed for effective communication
▸ **Text Comprehension**—purposeful and active strategies for understanding written language
                    (National Reading Panel, 2000)
Summarized in *Put Reading First*,
  http://www.nifl.gov/partnershipforreading/publications/reading_first1.html

PHONEMIC AWARENESS

‣ **Phonemic awareness**: the ability to hear, identify, and manipulate individual sounds in spoken words; appears critical for reading and spelling development

‣ *Put Reading First--various dimensions of phonemic awareness*: phoneme isolation, identity, categorization, **blending, segmentation**, deletion, addition, substitution

Critical Dimensions of Phonemic Awareness

‣ **Blending:** I'll say the sounds of a word. You guess what the word is. What word is this? /fffuuunnn/

‣ **Segmenting:** I'm going to say a word, and then I'll say each sound in the word. Listen carefully. "man" – /m/ /a/ /n/

‣ Now I'll say a different word and you tell me each sound you hear.

PHONICS

‣ **Systematic and Explicit Phonics** instruction significantly improves young children's decoding, spelling, and reading comprehension and older students' word reading and oral text reading skills.
  ◦ Systematic: logical sequence and careful selection of letter-sounds for instruction
  ◦ Explicit: precise directions for teachers or careful wording to emphasize accurate models for students and to make letter-sound relationships conspicuous

Systematic and Explicit Phonics Instruction

- Introduce most common sound for a new letter (/k/ for "c")
- Separate instruction of potentially confusing letters due to visual or auditory similarity (h/n, e/i, b/d)
- May introduce lower case letters first (more functional)

- Start with high-utility letters (s, t, m, and vowels, not z, x)
- Select words that start with continuous sounds rather than stop sounds when beginning to sound out words—or for blending and segmenting practice (use "mat" before "bat")

Potential sequence for introducing letters: a, m, t, s, S, i, f, d, r, o, O, g, l, h, u, U, c, C, b, n, k, K, v, V, e, w, W, j, p, P, y, Y, T, L, M, F, D, I, N, A, R, E, H, G, B, x, X, q, z, Z, J, Q

FLUENCY

- Oral reading fluency is the ability to read with accuracy, and with an appropriate rate, expression, and phrasing
- Fluency is important because it provides a bridge between word recognition and comprehension

Why Fluency Is Important

- More fluent readers focus their attention on making connections among the ideas in a text and between these ideas and their background knowledge. Therefore, they are able to focus on comprehension.

- Less fluent readers focus their attention primarily on decoding and accessing the meaning of individual words. Therefore, they appear to have little attention left for comprehending connected text.

Fluency Interventions

‣ Model fluent reading. Have students reread text themselves. Read aloud daily.
‣ Students should read aloud repeatedly with guidance.
‣ Use text at independent level (approx. 95% accuracy).
‣ Discuss prosody, or reading with expression, by reading: Eats, Shoots and Leaves by Lynne Truss.

‣ Activities from *Put Reading First*:
  ◦ Student-adult reading
  ◦ Choral reading
  ◦ Tape-assisted reading
  ◦ Partner reading
  ◦ Reader's theater

VOCABULARY

‣ Many words are learned indirectly through everyday experiences with oral and written language (e.g., conversations, listening to others read, reading independently).
‣ However, some vocabulary must be taught directly through specific word instruction or through word-learning strategies.
  ◦ Use examples and non-examples

Vocabulary

Teach students how to use context as a clue
  ◦ Definition/explanation clues
  ◦ Restatement/synonym clues
  ◦ Contrast/antonym clues
  ◦ Gist clues

Using context as a clue, examples

▸ Which clue can we use in each of these examples?
  ◦ The gentleman was very <u>enigmatic</u>. In fact, everyone agreed that he was quite mysterious.
  ◦ Lori is very <u>punctual</u>, while her sister is always running behind.
  ◦ She was very <u>surreptitious</u> about the way that she sneaked the candy, meaning that she stealthily and quietly reaching into the bowl.
  ◦ As the avalanche increased in intensity, the rocks began to <u>carom</u> off the side of the cliff. Then they would shoot off into the air like rifle shots.

COMPREHENSION

▸ …is the reason for reading!
▸ Comprehension is both purposeful and active. Good readers have a purpose for reading, and they think actively about what they are reading as they are doing it (*metacognition*—monitoring understanding during reading and applying "fix up" strategies, such as adjusting reading speed and rereading; also checking understanding afterward).

One of the most effective ways to help students improve their comprehension (NRP)…

▸ STRATEGIES
  ◦ Identifying important information
  ◦ Inferring/predicting
  ◦ Monitoring/clarifying
  ◦ Questioning
  ◦ Visualizing
  ◦ Summarizing
  ◦ Synthesizing
  ◦ Evaluating

Teaching comprehension strategies

‣ Provide the rationale for and evidence of the effectiveness of the strategy
‣ Describe and model the strategy using "thinking aloud"
‣ Provide supported practice and feedback
‣ Provide independent practice
‣ Teach for generalization and maintenance
**See sample instructional routine for comprehension in your handouts

_____

_____

_____

_____

_____

_____

_____

Questions and time for discussion

‣ Good luck and please e-mail if you need additional resources!
‣ Time for reflection…

_____

_____

_____

_____

_____

_____

_____